

10/587312

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4240-145 Sequence Listing.txt
SEQUENCE LISTING

<110> PAEK, Nam-Chon
KOH, Hee-Jong

<120> A NOVEL STAY-GENE AND METHOD FOR PREPARING STAY-GREEN TRANSGENIC
PLANTS

<130> 4240-145

<140> not yet assigned

<141> 2006-07-26

<150> PCT/KR2005/000104

<151> 2005-01-12

<150> 10-2004-0012026

<151> 2004-02-23

<160> 58

<170> PatentIn version 3.3

<210> 1

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<212> DNA

<213> Oryza sativa

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<213> Hordeum vulgare

4240-145 Sequence Listing.txt

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<213> Triticum aestivum

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4240-145 Sequence Listing.txt

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<211> 795

<212> DNA

<213> Triticum aestivum

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<212> DNA

<213> Zea mays

<400> 5

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4240-145 Sequence Listing.txt

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cccgtgggcg agtggccgca ccggtgtccc cagcagtgcg actgctgctt cccgccgcac	780
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 <212> DNA
 <213> Sorghum bicolor

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4240-145 Sequence Listing.txt

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 <212> DNA
 <213> Glycine max

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 <212> DNA
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4240-145 Sequence Listing.txt

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 <212> DNA
 <213> Vitis vinifera

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4240-145 Sequence Listing.txt

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<213> Pinus taeda

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4240-145 Sequence Listing.txt

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 <212> DNA
 <213> Citrus sinensis

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4240-145 Sequence Listing.txt

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tggtataata gacttcaaag agatgaagt gttgcagaat ggaagaaagt taaagggaag	360
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aatagtaaca acaagtggga gttacaaaa ccttggtgaag aggcttggtc atgttgcttt	720
cccccaatga gtgttatgcc ttggccttct tcaaactctg atgggatagg tgaggaaaat	780
gggaccatcc aacaaggctt gcaagagcag caaagttga	819

<210> 16
 <211> 810
 <212> DNA
 <213> Populus tremula x Populus tremuloides

<400> 16 atgggctctc tggcaattgc tcccttctt ccttcaaagc taagaccctc tatacttgat	60
caaaatagct ctctctttcc ttcaaagaaa aaactcaaga ggaagaacca atctatcagt	120
cctgtggcaa gggtatttgg gccatctatt tttgaggcat caaaactgaa ggtgttggtt	180

4240-145 Sequence Listing.txt

ttagggggttg atgagaagaa acatccaggg aatctgccaa ggacttatac actaacacat	240
agtgatatta cagctaaact tacttttagcc atctcacaaa ccatcaacaa ttctcagttg	300
cagggatggt ccaacaaatt gtacagagat gaagtgggtg cagagtggaa gaaagtaaag	360
ggaaagatgt ctctccatgt tcttgccat ataagtggag gccattttct cctagattta	420
tgttgtagac ttagatattt catcttccgc aaagaacttc ctgtggtatt gaaggccttc	480
tttcatggag atgggaattt gtttagcagc tatcctgaat tgcaggaggc tttagtttg	540
gtttactttc attccaacat tccagaattc aacaaggtag agtgctgggg tccactcaag	600
catgccgcag caccttatac tgctgcatct ggcgggggccc ctgagaacaa ggagcaagca	660
accgactgga acttgccctga gccatgccaa gagaactgtc agtgttgctt tccaccaatg	720
agcttgatcc catggtccga aatggttccc caagagaaca agaataatcc aagcacccag	780
cagacctttc aacaagctca acaaccctaa	810

<210> 17
 <211> 813
 <212> DNA
 <213> Populus tremula x Populus tremuloides

<400> 17 atgggttctt tggcagttgc tccctttctt ccctcaaagc caagaccctc tctctttgat	60
caacacagct ccctcttttc tccaagtaca aagctcaaga ggaagaacca atctatcagc	120
cctgtggcaa ggttatttgg gccatctatt tttgaggcat caaagctgaa ggtgctgttc	180
ttagggggttg atgagaagga gcatccaggg aatctgccaa ggacttatac tctaacacac	240
agtgatatga cagctaagct tacttttagcc atctcacaga ccataaacia ttctcagttg	300
cagggatggt ccaacaaatt gtaccgagat gaagtgggtg cagagtggaa gaaagtaaag	360
ggaaagatgt ctcttcatgt tcatlgccat ataagtggag gccattttct tttagattgg	420
tgctgcagac tcagatattt catcttccgc agagaactcc ctgtggtatt gaaggccttt	480
tttcatggcg atgggagctt gttgagcaac tatcctgaat tacaggaggg tttagtttg	540
gtttactttc attcaaacat tccggaattc agcaaggctc agtgctgggg tccactcaag	600
gatgctgctg cgccttctac ttctgaaact ggtgggtcca atgagaccga ggagctagca	660
aaccaatcaa gcaactggga cttgcccag ccattgccaa aggagaattg tagctgttgc	720
tttccaccaa tgagcttgat cccatggtct aaaatggttc cgttggagga caaaaataat	780
ccaagcacc caccagaacct tcaacagccc taa	813

<210> 18
 <211> 861
 <212> DNA
 <213> Mesembryanthemum crystallinum

4240-145 Sequence Listing.txt

<400> 18
atgggcactt tgactgcctc tatgttgctc ccatcaaagc tcaaaccttc agtctttgaa 60
gatcaatcct ctgtttatct taaaagatca tgcagaggac ttcccaagct caacaaggcc 120
aaatcttttt cacctgtgat gagattgttt gggccagcaa tatttgaagc atcaaagttg 180
aaggtgttgt tcttgggagt ggataaagag aagcaccag ggaagttgcc tagaacttat 240
actcttactc atagtgatat cacttccaag ctcaactttg ccatctctca aactattaac 300
aattcccagt tacaagggtg gtacaaccaa ctacagagag atgaagtggg ggcagaatgg 360
aagaaagtga aagggaagat gtcactccat gttcattgtc acataagtgg tggccatatc 420
ctcttagact tatttgctaa gcttagattc tacatctttt gcaaggaact ccctgtggta 480
ttgaaggcat ttgtgcatgg ggatgagaat ttgttcaaca actaccaga actacaagag 540
gcaatggtgt ggggtactct ccattcaaac cttgaagaat tcaacaaaat cgagtgtctg 600
ggcccgtca aggatgccgt ggcacgcaac tcgaagaaaa acaagaacaa gaacaagata 660
gatttcaagt taagtttcaa agaagaggat gattcaccag ataacgagtt ggagatacca 720
gagacttgca aggaaccctg tacctgttgc tttcctcca ctagtgtcat cccttggctc 780
cattcagcat tgtcacaggg tgatgatctt catctctctg gtgggaccca ccaaggcttg 840
gagcagcagc agcaaacttg a 861

<210> 19
<211> 807
<212> DNA
<213> *Arabidopsis thaliana*

<400> 19
atgtgtagtt tgtcggcgat tatgttgcta ccaacgaagc tgaaaccagc ttattcagac 60
aaacggagta acagtagcag cagcagctca ctcttcttca acaatagaag atccaagaag 120
aagaaccaat cgattgttcc cgttgcaagg ttgtttggac cggcgatttt cgaatcatcc 180
aaattgaaag tactcttctt aggggttgat gagaagaagc atccttcaac gctccctagg 240
acttacacac tcactcacag tgacattaca gctaaactaa ccttagctat ttctcaatcc 300
ataaacaact ctcaattgca aggatgggca aataggctat accgggatga agttgtggca 360
gaatggaaga aagtgaagg gaaaatgtcg cttcacgttc attgtcacat aagcgggtggc 420
catttccttt tagatctctt tgcaaagttt cgatatttca tcttttgcaa agaactacct 480
gtggtgttga aggcctttgt gcatggagat ggggaacttg tgaacaacta tcctgagcta 540
caagaagctc ttgtttgggt ctatttccat tctaattgtc atgagttcaa caaagtcgag 600
tggtgggggc cgctttggga agctgtttcg cctgatggtc acaagactga gactcttccc 660
gaggctcggg gtgcggacga gtgtagttgt tgttttccaa ccgttagctc gattccatgg 720

4240-145 Sequence Listing.txt

tctcatagtc ttagtaatga aggtgtaa	780
atgagggaatt	
gctactccaa atccggagaa actctag	807

<210> 20
 <211> 816
 <212> DNA
 <213> Arabidopsis thaliana

<400> 20	
atgtgtagtt tggctacaaa tctgttacta ccatcgaaga tgaaaccagt ttttccagag	60
aaactgagca ctactcact ctgtgtcacc actagaagat ctaagatgaa gaaccgatct	120
attgttcctg ttgcaagatt gtttgaccg gcgatttttg aagcctccaa attgaaagtg	180
ttattcttag gagttgatga gaagaagcat ccagcaaac ttccaagaac ttacactctt	240
actcacagtg acataaccgc taaattaact ttagctatat ctcaatccat taataactct	300
cagttgcaag gatgggcaaa taaattgttc cgggacgaag tagtgggcga gtggaagaaa	360
gtgaaaggta aaatgtcgct tcatgttcat tgccacatta gcggaggcca cttcttcttg	420
aatctcatcg cgaagcttcg gtactacatc ttttgcaaag aattacctgt ggtactggaa	480
gcttttgccc atggagatga gtatttgta aataatcacc ccgagctaca agaatctcct	540
gtttgggttt atttccattc caacatcccg gagtacaaca aggtcgaatg ttggggaccg	600
ctttgggagg ccatgtcgca gcaccagcac gacggaagga cccacaagaa gagtgaact	660
ctaccggagc taccttgtcc tgatgagtgc aagtgttgct ttccgacggt tagcacgatt	720
ccgtgggtctc atcgtcatta tcaacatacc gcagcggatg agaatgttgc ggatggcctg	780
ttggaaatac ctaaccctgg gaaatcaaag ggatag	816

<210> 21
 <211> 662
 <212> DNA
 <213> Lycopersicon esculentum

<400> 21	
atgggaactt tgactacttc tctagtgggt ccatctaagc tcaacaatga acaacagagc	60
tctattttta tacacaaaac tagaaggaaa tgcaagaaga atcaatccat agtacctgtg	120
gcaaggttat ttggaccagc tatatttgaa gcttcaaat tgaaggtagt ttttttggga	180
gttgatgaag aaaagcatcc aggaaagttg ccaagaacat atacactgac tcatagtgat	240
attacttcta aacttacttt ggctatctcc caaacatca ataattctca gttgcaaggt	300
tggtataaca gacttcaaag agatgaagtt gttgcagagt ggaagaaagt aaaagggag	360
atgtcacttc atgtccattg ccacattagt ggaggccatt ttatgttaga cttatttgct	420
agactcagaa actacatctt ctgcaaagaa ctccctgtgg ttctcaaggc ttttgttcat	480
ggagatgaga atttactaag gaattatcca gagttacaag aagctttagt ttgggtatat	540

4240-145 Sequence Listing.txt

tttcattcaa acattcaaga attcaacaaa gtagaatggt ggggtccact cagagatgca	600
acttccccct catcttcttc tgggtgggga ggtggggtga agagtacaag ttttacaagc	660
ca	662

<210> 22
 <211> 334
 <212> DNA
 <213> Beta vulgaris

<400> 22	
cccgaatta caagaagctt cagtatgggt atacttccat tcaagcattc ctgaatttaa	60
caaagtagag tgctggggcc cattgaccga cgccgtggat ccgccgtcga aaaataagaa	120
gaggatgatg atgataaatg atgagcagga taaagaagaa gaagaagaag caagtagctc	180
aaaatgggag atgttagttc cttgcacgaa accatgtaga tgttgctttc cacctacaag	240
tttgattcct tggactcctt cactatcaca agaacagcaa caagagcaac aacttcctgg	300
agacgtttcg atcccgccac ctgggactcg ctag	334

<210> 23
 <211> 564
 <212> DNA
 <213> Zosterops japonica

<400> 23	
acgtacacgc ttactcacag cgacgtcacg gccaagctca cgctggcggt ctccacacc	60
atccacgccg cgagctgca ggggtggtac aaccgcctgc agcgggacga ggtggtggcc	120
gagtggagga aggtgcgcg gaacatgtcg ctgcacgtcc actgccacat ctccggcgga	180
cacttcctcc gcgacctcat cgcgccgctc cgctactaca tcttccgcaa ggagctcccc	240
gtggtttctca aggcgttcgt gcacggcgac ggcagcctgt tcagcagcca cccggagttg	300
gaggaggcca cgggtgtgggt ctacttcac tccaacctgc cccgcttcaa ccgcgtcgag	360
tgctgggggtc ctctctgca cgccgccgcg cccgtcgagg aggaggggca gcagaatgac	420
gatcggttgc ccgcgggcga gtggcccgcg cgggtgcccc agcagtgcga gtgctgcttc	480
ccgccgcaca gtctcatccc ctggcccaac gagcacgaca tggctccac cgacgcccc	540
gccgctggcc agacgcagca gtga	564

<210> 24
 <211> 284
 <212> DNA
 <213> Lotus corniculatus

<400> 24	
actaccaga attgcaggat gcattggttt ggggtatactt tcactcaaag attccagagt	60
tcaacaaggt acagtgttgg ggaccactga aggaggcggc tgcaccgtca ggtgggtccc	120

4240-145 Sequence Listing.txt

cggagaaaga aggtgaaggg gtgaagatgc cggatccgtg tccagaagaa tgtgagtgtt	180
gctttcctcc tccaccggca ttggatccaa tcccatggtc tgaagaagtt ccctctcccc	240
attatgaagc ttttgatggg gttgggaccc gaccaaactt gtag	284

<210> 25
 <211> 326
 <212> DNA
 <213> Lotus corniculatus

<400> 25 tagatctatg tgctaagcta agatacttca tcttctgcaa agagcttcca gtggtattga	60
aggccttcat tcacggcgat gaaaatttgt tcaacaacta cccggagttg gaggaatcat	120
tggtttgggt ttactttcac tcaaacatct cagaattcaa caaggtggag tgttggggtc	180
cacttaagga tgcttgca acatcaattg ggtcctactc ctatgacaag ggtatgcctc	240
aaactcagcc atgccaacaa aactgcgagt gttgctttac accgatgagc tcaagtgatt	300
ggattggaac ccaacaaaaa ttgtga	326

<210> 26
 <211> 415
 <212> DNA
 <213> Saccharum officinarum

<400> 26 cacgaggctc gacctcatcg ccggcctccg ctactacatc ttccgcaagg agctccccgt	60
ggtgctcaag gcgttcgtgc acggcgacgg cgacctgttc agccggcacc cggagctgga	120
ggatgccacg gtgtgggtct acttccactc caacctgacc cgcttcaacc gcgtcgagt	180
ctgggggtccg ctccgcgacg ccgcccgcgc gccggccgag gaagactcca ccgcgccggc	240
cgcctccaac tccaaggagg ggcagatgcc gcccgtgggc gagtggccgt accggtgtcc	300
ccagcagtgc gactgctgct tcccgcccca cagcctcatc ccctggccga acgagcacga	360
catggctgcc gccgccgccc atgccaccgc cgctggccag gcccaacagc agtag	415

<210> 27
 <211> 481
 <212> DNA
 <213> Picea abies

<400> 27 aatcaataaa gatcagttgc agggatggta taacaggtta cagagagacg aagtgattgc	60
ccagtggaag aaatctcagg gcaaaatgtc tctgcacgtt cactgtcata tcagcggagg	120
tcattggctt ctggacgcca tcgcgagact tagattttac atcttccgca aggaactgcc	180
ggtggtgctg gaggcgttca ggcattggaga tcgggctctg cttgacaagc acccagagct	240
agagaccgct ctggtttggg tgtattttcca ctccaatgtc agagagttca aacgcgtgga	300

4240-145 Sequence Listing.txt

gtgttggggt tctttggctg aggcattgcaa ggggtgccct agcaatttgg agaaggaatt	360
ggacgaggag tttaattggtg aaaaattgga gatgcctagt cattgctcag aaccatgcaa	420
ttgttgcttt cctccattta gcgtccttct acgaccagaa gatgctgaac aatttattta	480
a	481

<210> 28
 <211> 632
 <212> DNA
 <213> Brassica napus

<400> 28	
atgtgtagtt tggcaacaaa tctcttactc ccatcgacga tgaaaccagc ttttacagag	60
aaacagaaca ctaactcact ctttcttaca aataaaagat ctttgatgca gaacagatct	120
actgttcctg ttcctgttgc aagattgtta gaaccggcga tttttgaagc ctccaaattg	180
aaagtatcgt tcttaggagt tgatgagaag aagcatccat caaagctccc aagaacttac	240
actcttactc acagtacat aacagctaag ttaacttttag ctatctcca atctatcaat	300
aattctcagt tgcagggatg ggctaataka ttatttcggg acgaagtagt ggccgagtgg	360
aagaaagtga agggtaaaat gtcccttcac gttcattgcc acattagcgg aggccacttc	420
cttttgatc tcatagcgaa gcttcggtac tacatatttt gcaaggaatt accggtggta	480
ttgaaagctt ttgttcattg ggatgggaac ttgttgaata gttaccctga gctacaagaa	540
tctcctgttt ggggtttattc cattcaaaca tccccgagta caataagggt gaatgttggg	600
ggccgctttg ggaggccacg cagcacaac ac	632

<210> 29
 <211> 291
 <212> DNA
 <213> Brassica napus

<400> 29	
atgtgtagtt tgtcagcgaa catgttggtta cgcacaaagc tgaaaccagc ttattcagac	60
aaacggggta atagtacgaa ctacttctt gtctccaata caagatccaa gaggaagaac	120
caatccgttg ttcctatggc aagattgttt ggaccggcga ttttcgaatc atccaagttg	180
aaagtattgt ttctaggtgt tgatgacaag aagcatccac caacgcttcc aaggacttac	240
actctcactc acagtacat tacagctaag ctaacttttag ctatttctca c	291

<210> 30
 <211> 274
 <212> PRT
 <213> Oryza sativa

<400> 30

4240-145 Sequence Listing.txt

Met Ala Ala Ala Thr Ser Thr Met Ser Leu Leu Pro Pro Ile Thr Gln
1 5 10 15

Gln Gln Arg Trp His Ala Ala Asp Ser Leu Val Val Leu Ala Ser Arg
20 25 30

Cys His Asn Ser Arg Arg Arg Arg Arg Cys Arg Tyr Val Val Pro Arg
35 40 45

Ala Arg Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val
50 55 60

Leu Phe Leu Gly Val Asp Glu Glu Lys His Gln His Pro Gly Lys Leu
65 70 75 80

Pro Arg Thr Tyr Thr Leu Thr His Ser Asp Val Thr Ala Arg Leu Thr
85 90 95

Leu Ala Val Ser His Thr Ile Asn Arg Ala Gln Leu Gln Gly Trp Tyr
100 105 110

Asn Lys Leu Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Gln
115 120 125

Gly His Met Ser Leu His Val His Cys His Ile Ser Gly Gly His Val
130 135 140

Leu Leu Asp Leu Ile Ala Gly Leu Arg Tyr Tyr Ile Phe Arg Lys Glu
145 150 155 160

Leu Pro Val Val Leu Lys Ala Phe Val His Gly Asp Gly Asn Leu Phe
165 170 175

Ser Arg His Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His
180 185 190

Ser Asn Leu Pro Arg Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Arg
195 200 205

Asp Ala Gly Ala Pro Pro Glu Glu Asp Asp Ala Val Ala Ala Ala Ala
210 215 220

Ala Glu Glu Ala Ala Ala Glu Gln Met Pro Ala Ala Gly Glu Trp Pro
225 230 235 240

Arg Arg Cys Pro Gly Gln Cys Asp Cys Cys Phe Pro Pro Tyr Ser Leu
245 250 255

4240-145 Sequence Listing.txt

Ile Pro Trp Pro His Gln His Asp Val Ala Ala Ala Asp Gly Gln Pro
260 265 270

Gln Gln

<210> 31
<211> 281
<212> PRT
<213> Hordeum vulgare

<400> 31

Met Ala Ile Ala Ala Ala Ala Gly Ala Ser Thr Met Ser Leu Leu Pro
1 5 10 15

Ile Ser His Leu Lys Gln Leu Gln Leu Gln Arg Arg Ala Arg Pro Gly
20 25 30

Arg Val Leu Val Leu Gly Arg Arg Arg Arg His Val Val Pro Arg Ala
35 40 45

Arg Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu
50 55 60

Phe Val Gly Val Asp Glu Glu Lys His Pro Gly Lys Leu Pro Arg Thr
65 70 75 80

Tyr Thr Leu Thr His Ser Asp Val Thr Ala Arg Leu Thr Leu Ala Val
85 90 95

Ser His Thr Ile His Ala Ala Gln Leu Gln Gly Trp Tyr Asn Arg Leu
100 105 110

Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Gln Gly Ala Met
115 120 125

Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp
130 135 140

Leu Ile Ala Pro Leu Arg Tyr Tyr Ile Phe Arg Lys Glu Leu Ser Val
145 150 155 160

Val Leu Lys Ala Phe Val His Gly Asp Gly Ser Leu Phe Ser Gln His
165 170 175

Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His Ser Asn Asn
180 185 190

4240-145 Sequence Listing.txt

Pro Asn Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Ser Asp Ala Ala
195 200 205

Ala Pro Tyr Asp Asp Glu Ala Ala Val Asp Ser Pro Ala Ala Asp Ala
210 215 220

Ala Met Ala Ala Thr Ala Val Asn Thr Ala Ala Asp Glu Gln Ala Thr
225 230 235 240

Arg Ala Gly Gln Trp Pro Arg Arg Cys Pro Gly Gln Cys Asp Cys Cys
245 250 255

Phe Pro Pro Glu Cys Leu Ile Pro Trp Pro His Glu His Glu Met Ala
260 265 270

Ala Asp Ala Gly Gln Ala Pro Pro Gln
275 280

<210> 32
<211> 266
<212> PRT
<213> Triticum aestivum

<400> 32

Met Ala Thr Ala Ser Thr Met Ser Leu Leu Pro Ile Ser His Leu Lys
1 5 10 15

Gln Met Gln Gln Gln Arg Arg Thr Arg Leu Ala Gly Ala Leu Pro Gly
20 25 30

Lys Val Leu Val Leu Gly Arg Arg Arg Arg His Val Val Pro Arg Ala
35 40 45

Arg Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu
50 55 60

Phe Val Gly Val Asp Glu Glu Lys His Pro Gly Lys Leu Pro Arg Thr
65 70 75 80

Tyr Thr Leu Thr His Ser Asp Val Thr Ala Arg Leu Thr Leu Ala Val
85 90 95

Ser His Thr Ile His Ala Ala Gln Leu Gln Gly Trp Tyr Asn Arg Leu
100 105 110

Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Gln Gly Ala Met
115 120 125

4240-145 Sequence Listing.txt

Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp
130 135 140

Leu Ile Ala Pro Leu Arg Tyr Tyr Ile Phe Arg Lys Glu Leu Pro Val
145 150 155 160

Val Leu Lys Ala Phe Val His Gly Asp Gly Ser Leu Phe Ser Gln His
165 170 175

Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His Ser Asn Asn
180 185 190

Pro Asn Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Arg Glu Ala Ala
195 200 205

Ala Pro Tyr Asp Asn Lys Thr Pro Thr Arg Pro Cys Pro Gln Gly Asp
210 215 220

Ala Gly Asp Lys Lys Ala Met Asp Arg Ala Ala Pro Arg Gly Ser Arg
225 230 235 240

Gly Met Glu Cys Phe Ser Arg Pro Asn Pro Ile Pro Gly Pro Arg Ile
245 250 255

Gln Met Pro Pro Pro Arg Gln Ala Pro Gln
260 265

<210> 33
<211> 264
<212> PRT
<213> Triticum aestivum

<400> 33

Met Ala Thr Ala Ser Thr Met Ser Leu Leu Pro Ile Ser His Leu Lys
1 5 10 15

Gln Met Gln Gln Gln Arg Arg Thr Arg Leu Ala Gly Ala Leu Pro Gly
20 25 30

Lys Val Leu Val Leu Gly Arg Arg Arg Arg His Val Val Pro Arg Ala
35 40 45

Arg Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu
50 55 60

Phe Val Gly Val Asp Glu Glu Lys His Pro Gly Lys Leu Pro Arg Thr
65 70 75 80

4240-145 Sequence Listing.txt

Tyr Thr Leu Thr His Ser Asp Val Thr Ala Arg Leu Thr Leu Ala Val
 85 90 95
 Ser His Thr Ile His Ala Ala Gln Leu Gln Gly Trp Tyr Asn Arg Leu
 100 105 110
 Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Gln Gly Ala Met
 115 120 125
 Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp
 130 135 140
 Leu Ile Ala Pro Leu Arg Tyr Tyr Ile Phe Arg Lys Glu Leu Pro Val
 145 150 155 160
 Val Leu Lys Ala Phe Val His Gly Asp Gly Ser Leu Phe Ser Gln His
 165 170 175
 Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His Ser Asn Asn
 180 185 190
 Pro Asn Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Ala Met Pro Arg
 195 200 205
 Ala Leu Asp Asp Glu Thr Pro Arg Asp Ser His Arg Arg Arg Thr Val
 210 215 220
 Pro Leu His Asp Asp Ser Arg Arg Ala Gly Ser Ala Pro Gly Ala Pro
 225 230 235 240
 Ala Leu Asp Gly Val Pro Gln Asn Ala Ile Pro Gly Ala Asp Pro Ile
 245 250 255
 Ala Ala Asn Arg Gln Gly Pro Gln
 260
 <210> 34
 <211> 281
 <212> PRT
 <213> Zea mays
 <400> 34
 Met Ala Ala Ala Ala Ser Thr Met Ser Leu Leu Pro Ile Ser Gln Pro
 1 5 10 15
 Arg Lys Gln Gln Gln Gln Gly Ala Gly Ala Val Val Val Phe Gln Arg
 20 25 30

4240-145 Sequence Listing.txt

Arg Pro Trp Asp Ala Arg Arg Arg Arg Tyr Val Val Pro Thr Ala Arg
35 40 45

Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe
50 55 60

Leu Gly Val Asp Glu Gly Ser Ser Lys His Leu His Ala His His Pro
65 70 75 80

Ala Pro Ala Pro Leu Leu Pro Arg Thr Tyr Thr Leu Thr His Ser Asp
85 90 95

Val Thr Ala Ser Leu Thr Leu Ala Val Ser His Thr Ile Asn Arg Ala
100 105 110

Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp Glu Val Val Ala
115 120 125

Glu Trp Lys Lys Val Arg Gly Arg Met Ser Leu His Val His Cys His
130 135 140

Ile Ser Gly Gly His Leu Leu Leu Asp Leu Ile Ala Gly Leu Arg Tyr
145 150 155 160

Tyr Ile Phe Arg Lys Glu Leu Pro Val Val Leu Glu Ala Phe Val His
165 170 175

Gly Asp Gly Asp Leu Phe Ser Arg His Pro Glu Leu Glu Glu Ala Thr
180 185 190

Val Trp Val Tyr Phe His Ser Asn Leu Ala Arg Phe Asn Arg Val Glu
195 200 205

Cys Trp Gly Pro Leu Arg Asp Ala Ala Ala Pro Ala Pro Ala Glu Asp
210 215 220

Asp Ser Thr Ala Pro Ala Ala Ala Ser Ile Ala Met Glu Gly Gln Met
225 230 235 240

Pro Val Gly Glu Trp Pro His Arg Cys Pro Gln Gln Cys Asp Cys Cys
245 250 255

Phe Pro Pro His Ser Leu Ile Pro Trp Pro Asn Glu Gln Asp Met Ala
260 265 270

Ala Ala Ala Gly Gln Val Arg Gln Gln
275 280

4240-145 Sequence Listing.txt

<210> 35
 <211> 274
 <212> PRT
 <213> Zea mays

<400> 35

Met Ala Ala Ala Thr Ala Ala Ala Ser Thr Met Ser Leu Leu Pro Ile
 1 5 10 15

Ser Gln Leu Arg Gln Gln His Gly Ala Gly Ala Met Arg Arg Arg Pro
 20 25 30

Trp Val Ala Arg Arg Arg Arg Tyr Val Val Pro Thr Ala Arg Leu Phe
 35 40 45

Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
 50 55 60

Val Asp Asp Glu Ala Gly Ser Lys Gln His Gly Pro Leu Pro Arg Thr
 65 70 75 80

Tyr Thr Leu Thr His Ser Asp Val Thr Ala Arg Leu Thr Leu Ala Val
 85 90 95

Ser His Thr Ile Asn Arg Ala Gln Leu Gln Gly Trp Tyr Asn Arg Leu
 100 105 110

Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Arg Gly Arg Met
 115 120 125

Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp
 130 135 140

Leu Ile Ala Gly Leu Arg Tyr Val Ile Phe Arg Lys Glu Leu Pro Val
 145 150 155 160

Val Leu Lys Ala Phe Val His Gly Asp Gly Asp Leu Phe Ser Arg His
 165 170 175

Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His Ser Asn Leu
 180 185 190

Ala Arg Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Arg Asp Ala Ala
 195 200 205

Ala Pro Ala Glu Asp Asp Ser Thr Ala Pro Pro Asp Ala Ser Asn Ser
 210 215 220

4240-145 Sequence Listing.txt

Lys Glu Ala Gly Gln Met Met Ala Met Cys Glu Trp Pro His Arg Cys
225 230 235 240

Pro Gln Gln Cys Gly Cys Cys Phe Pro Pro His Ser Leu Ile Pro Trp
245 250 255

Pro Asn Glu His Asp Met Ala Ala Ala Asp Ala Ser Gly Ser Ala Gln
260 265 270

Gln Gln

<210> 36
<211> 266
<212> PRT
<213> Sorghum bicolor

<400> 36

Met Ala Ala Ala Thr Ala Ala Ala Ala Ser Thr Met Ser Leu Pro Pro
1 5 10 15

Ile Ser Gln Leu Arg Gln Gln Gln His Gly Ala Gly Ala Val Val Val
20 25 30

Phe Arg Arg Arg Ala Arg Asp Ala Arg Arg Arg Arg Tyr Val Val Pro
35 40 45

Thr Ala Arg Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys
50 55 60

Val Leu Phe Leu Gly Val Asp Glu Glu Ser Asn Asn Lys His Gly His
65 70 75 80

Pro Thr Thr Pro Ser Pro Thr Ser Pro Pro Leu Pro Leu Leu Pro Arg
85 90 95

Thr Tyr Thr Leu Thr His Ser Asp Val Thr Ala Ser Leu Thr Leu Ala
100 105 110

Val Ser His Thr Ile Asn Arg Ala Gln Leu Gln Gly Trp Tyr Asn Arg
115 120 125

Leu Gln Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Arg Gly Arg
130 135 140

Met Ser Leu His Val Leu Lys Ala Phe Val His Gly Asp Gly Asp Leu
145 150 155 160

4240-145 Sequence Listing.txt

Phe Ser Arg His Pro Glu Leu Glu Asp Ala Pro Val Trp Val Tyr Phe
165 170 175

His Ser Asn Leu Thr Arg Phe Asn Arg Val Glu Cys Trp Gly Pro Leu
180 185 190

Arg Asp Ala Ala Ala Pro Pro Ala Glu Asp Asp Ser Thr Ala Pro Ala
195 200 205

Ala Ala Ser Asn Lys Asp Gly Gln Met Pro Pro Val Gly Glu Trp Pro
210 215 220

Tyr Arg Cys Pro Gln Gln Cys Asp Cys Cys Phe Pro Pro His Ser Leu
225 230 235 240

Ile Pro Trp Pro Asn Glu Arg Asp Met Ala Ala Ala Ala Ala Asp Ala
245 250 255

Ser Ser Ala Ala Gly Gln Ala Gln Gln Gln
260 265

<210> 37
<211> 261
<212> PRT
<213> Glycine max

<400> 37

Met Cys Thr Leu Thr Thr Val Pro Val Leu Pro Ser Lys Leu Asn Lys
1 5 10 15

Pro Ser Leu Ser Pro His His Asn Ser Leu Phe Pro Tyr Cys Gly Arg
20 25 30

Arg Val Gly Lys Lys Asn Lys Ala Met Val Pro Val Ala Arg Leu Phe
35 40 45

Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
50 55 60

Val Asp Glu Asn Lys His Pro Gly Asn Leu Pro Arg Thr Tyr Thr Leu
65 70 75 80

Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser Gln Thr
85 90 95

Ile Asn Asn Ser Gln Leu Gln Gly Trp Tyr Asn Arg Phe Gln Arg Asp
100 105 110

4240-145 Sequence Listing.txt

Glu Val Val Ala Gln Trp Lys Lys Val Lys Gly Arg Met Ser Leu His
115 120 125

Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Ile Leu Ala
130 135 140

Arg Leu Arg Tyr Phe Ile Phe Cys Lys Glu Leu Pro Val Val Leu Lys
145 150 155 160

Ala Val Val His Gly Asp Glu Asn Leu Phe Asn Ser Tyr Pro Glu Leu
165 170 175

Gln Asp Ala Leu Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Phe
180 185 190

Asn Lys Val Glu Cys Trp Gly Pro Leu Lys Glu Ala Ser Ala Pro Thr
195 200 205

Gly Gly Val Gln Glu Glu Gly Leu Ala Ile Pro Gln Pro Cys Gln Glu
210 215 220

Glu Cys Gln Cys Cys Phe Pro Pro Leu Thr Leu Ser Pro Ile Gln Trp
225 230 235 240

Ser Lys Gln Val Pro Ser Arg His Tyr Glu Pro Cys Asp Gly Ile Gly
245 250 255

Thr Gln Gln Asn Leu
260

<210> 38
<211> 271
<212> PRT
<213> Glycine max

<400> 38

Met Gly Thr Leu Thr Thr Val Pro Val Leu Pro Ser Lys Leu Asn Lys
1 5 10 15

Pro Ser Leu Ser Pro Arg His Asn Ser Leu Phe Pro Tyr Tyr Gly Arg
20 25 30

Arg Val Gly Lys Lys Asn Lys Ala Met Val Pro Val Ala Arg Leu Phe
35 40 45

Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
50 55 60

4240-145 Sequence Listing.txt

Val Asp Glu Asn Lys His Pro Gly Asn Leu Pro Arg Thr Tyr Thr Leu
65 70 75 80

Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser Gln Thr
85 90 95

Ile Asn Asn Ser Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp
100 105 110

Glu Val Val Ala Gln Trp Lys Lys Val Lys Gly Lys Met Ser Leu His
115 120 125

Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Ile Leu Ala
130 135 140

Arg Leu Arg Tyr Phe Ile Phe Cys Arg Glu Leu Pro Val Val Leu Lys
145 150 155 160

Ala Val Val His Gly Asp Glu Asn Leu Phe Asn Asn Tyr Pro Glu Leu
165 170 175

Gln Asp Ala Leu Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Phe
180 185 190

Asn Lys Val Glu Cys Trp Gly Pro Leu Lys Glu Ala Ser Ala Pro Ile
195 200 205

Gly Gly Ala Lys Glu Glu Ser Glu Gln Glu Thr Leu Leu Ser Lys Glu
210 215 220

Gly Leu Ala Ile Pro Gln Pro Cys Gln Glu Glu Cys Glu Cys Cys Phe
225 230 235 240

Pro Pro Leu Thr Leu Ser Pro Ile Gln Trp Ser Gln Gln Val Pro Ser
245 250 255

His His Tyr Glu Pro Cys Asp Gly Ile Glu Thr Gln Gln Ser Leu
260 265 270

<210> 39
<211> 274
<212> PRT
<213> Vitis vinifera

<400> 39

Met Ala Thr Leu Thr Ala Ala Leu Val Leu Pro Ser Glu Leu Lys Pro
1 5 10 15

4240-145 Sequence Listing.txt

Ser Phe Ser Gln His Gln Ser Ser Leu Phe Val Cys Arg Arg Arg Pro
20 25 30

Lys Lys Ser Asn Pro Ala Phe Pro Ala Ala Arg Leu Phe Gly Pro Ala
35 40 45

Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp Glu
50 55 60

Lys Lys His Pro Gly Lys Leu Pro Arg Thr Tyr Thr Leu Thr His Ser
65 70 75 80

Asp Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn Asn
85 90 95

Ser Gln Leu Gln Gly Trp Ser Asn Arg Leu Gln Arg Asp Glu Val Val
100 105 110

Ala Gln Trp Lys Lys Val Lys Asp Gln Met Ser Leu His Val His Cys
115 120 125

His Ile Ser Gly Gly His Phe Leu Leu Asp Leu Cys Ala Lys Leu Arg
130 135 140

Tyr Phe Ile Phe Cys Lys Glu Leu Pro Val Val Leu Lys Ala Phe Val
145 150 155 160

His Gly Asp Gly Asn Leu Leu Asn Asn Tyr Pro Glu Leu Gln Glu Ala
165 170 175

Leu Val Trp Val Tyr Phe His Ser Asn Leu Pro Glu Phe Asn Arg Val
180 185 190

Glu Cys Trp Gly Ala Leu Asn Asn Ala Ala Ala Pro Pro Pro Pro Ala
195 200 205

Ala Gly Gly Gly Gly Gly Arg Val Glu Ala His Gln Asp Met Arg Gln
210 215 220

Val Glu Pro Ser Ser Lys Trp Glu Arg Pro Glu Glu Pro Cys Met Glu
225 230 235 240

Asn Cys Thr Cys Cys Phe Pro Pro Met Ser Leu Ile Pro Trp Ser Gln
245 250 255

Asp Leu Ala His Glu Asn Ile His Asp Thr Gln Lys Gly Leu Gln Gln

260

Gln Thr

<210> 40
<211> 280
<212> PRT
<213> Lactuca sativa

<400> 40

Met Ala Ser Leu Ile Leu Pro Thr Lys Gln Asn Pro Pro Ser Ser Ser
1 5 10 15

Phe Leu His Gln Asn His Gln Asn Asn Pro Phe Phe Thr Asn Lys Arg
20 25 30

Arg Lys Leu Lys Arg Asn Gln Ala Leu Val Pro Val Ala Arg Leu Phe
35 40 45

Gly Pro Ser Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
50 55 60

Val Asp Glu Lys Lys His Pro Gly Lys Leu Pro Arg Thr Tyr Thr Leu
65 70 75 80

Thr His Ser Asp Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr
85 90 95

Ile Asn Asn Ser Gln Leu Gln Gly Trp Tyr Asn Gln Leu Tyr Arg Asp
100 105 110

Glu Val Val Ala Glu Trp Arg Lys Val Lys Gly Asn Met Ser Leu His
115 120 125

Val His Cys His Ile Ser Arg Gly His Phe Leu Leu Asp Leu Cys Ala
130 135 140

Arg Leu Arg Phe Phe Ile Phe Thr Lys Glu Leu Pro Leu Val Leu Lys
145 150 155 160

Ala Phe Ala His Gly Asp Gly Asn Leu Leu Asn Ser Tyr Pro Glu Leu
165 170 175

Gln Glu Ala Ser Val Trp Val Tyr Phe His Ser Asn Ile Gln Glu Phe
180 185 190

Asn Arg Val Glu Cys Trp Gly Pro Leu Arg Glu Ala Val Gly Pro Leu

4240-145 Sequence Listing.txt
200 205

195

Ser Thr Thr Thr Ser Ser Ser Ser Ser Ser Ser Leu Ser Glu Ser Thr
210 215 220

Ile Ala Glu Ala Gly Glu Gly Ser Asn Asn Trp Glu Ile Pro Lys Pro
225 230 235 240

Cys Leu Glu Ala Cys Ala Cys Cys Phe Pro Pro Met Ser Ser Ile Pro
245 250 255

Trp Ser His Asp Leu Val Lys Asn Gln Asp Asp Asp Asp Gly Ala Thr
260 265 270

His Gln Gly Leu Gln Gln Lys Ala
275 280

<210> 41
<211> 290
<212> PRT
<213> Pinus taeda

<400> 41

Met Ala Val Ala Arg Ile Ser Ala Gly Lys Thr Gln His Cys Tyr Ser
1 5 10 15

Phe Ser Pro Ser Asp Val Arg Ile Ser Ser Ala Pro Gln Asn Ser Gln
20 25 30

Ser Gln Phe Lys Arg Lys Ser Lys Ile Lys Leu Ser Ser Arg Phe Leu
35 40 45

Ala Ser Glu Ser Ser Trp Asn Gly Leu Val Ala His Gln Leu Gln Cys
50 55 60

Asn Asn Arg His Arg Thr Asn Ser Ser Phe Pro Arg Ser Thr Ser Arg
65 70 75 80

Val Val Ala Arg Leu Phe Gly Pro Ala Ile Phe Gln Ala Ser Lys Leu
85 90 95

Lys Val Leu Phe Leu Gly Thr His Glu Glu Lys His Pro Ala His Leu
100 105 110

Pro Arg Thr Tyr Thr Leu Thr His Ser Asp Ile Thr Ala Lys Leu Thr
115 120 125

Leu Ala Phe Ser Gln Thr Ile Asn Lys Asp Gln Gly Trp Tyr Asn Arg
Page 29

4240-145 Sequence Listing.txt

130

135

140

Leu Gln Arg Asp Glu Val Leu Ala Gln Trp Lys Lys Ser Gln Gly Lys
145 150 155 160

Met Ser Leu His Val His Cys His Ile Ser Gly Gly His Trp Leu Leu
165 170 175

Asp Ala Ile Ala Arg Leu Arg Phe Tyr Ile Phe Arg Lys Glu Leu Pro
180 185 190

Val Val Leu Glu Ala Phe Arg His Gly Asp Arg Ala Leu Leu Glu Lys
195 200 205

His Pro Glu Leu Glu Thr Ala Leu Val Trp Val Tyr Phe His Ser Asn
210 215 220

Val Lys Glu Phe Lys Arg Val Glu Cys Trp Gly Ser Leu Ala Glu Ala
225 230 235 240

Cys Lys Gly Ala Pro Ser Asn Leu Asn Lys Glu Leu Asp Glu Leu Asp
245 250 255

Gly Gly Lys Leu Glu Met Pro Ser His Cys Ala Glu Pro Cys Ser Cys
260 265 270

Cys Phe Pro Pro Phe Ser Val Leu Leu Arg Pro Glu Asp Val Glu Gln
275 280 285

Phe Ser
290

<210> 42
<211> 271
<212> PRT
<213> Citrus sinensis

<400> 42

Met Ala Ser Leu Val Ala Ala Leu Gly Leu Pro Ser Lys Leu Lys Ala
1 5 10 15

Ser Pro Tyr Glu Gln Gln Asn Ala Leu Phe Val Ser Arg Arg Arg Ser
20 25 30

Lys Lys Lys Asn Gln Ser Phe Ala Pro Val Ala Arg Leu Phe Gly Pro
35 40 45

Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp

4240-145 Sequence Listing.txt

50

55

60

Glu Glu Lys His Pro Gly Lys Leu Pro Arg Thr Tyr Thr Leu Thr His
65 70 75 80

Ser Asp Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn
85 90 95

Asn Ser Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp Glu Val
100 105 110

Val Ala Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His Val His
115 120 125

Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Ile Cys Ala Arg Leu
130 135 140

Arg Phe Phe Ile Phe Ser Lys Glu Leu Pro Val Val Leu Lys Ala Phe
145 150 155 160

Val His Gly Asp Gly Asn Leu Leu Asn Asn His Pro Glu Leu Gln Glu
165 170 175

Ala Leu Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Phe Asn Lys
180 185 190

Val Glu Cys Trp Gly Pro Leu Lys Glu Ala Val Ala Gly Ser Ser Glu
195 200 205

Ala Gly Gly Thr Arg His Glu Ile Arg Gln Glu Thr Ser Ile Ser Asn
210 215 220

Trp Glu Leu Pro Glu Pro Cys Gln Glu Thr Cys Asn Cys Cys Phe Pro
225 230 235 240

Pro Met Ser Leu Ile Pro Trp Ser Glu Lys Leu Pro Leu Gln Thr Glu
245 250 255

Asn Arg Gly Thr Gln Gly Gln Glu Ser Leu Gln Gln Gln Thr Arg
260 265 270

<210> 43

<211> 263

<212> PRT

<213> Medicago truncatula

<400> 43

Met Gly Thr Leu Thr Thr Ala Pro Pro Pro Met Leu Thr Ser Lys Phe

4240-145 Sequence Listing.txt

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1          5          10          15
Lys Pro Ser Phe Ser Pro Gln His Lys Pro Leu Phe Pro Asn Arg Arg
20          25          30
Arg Leu Trp Lys Lys Asn Gln Ser Ile Val Pro Val Ala Arg Leu Phe
35          40          45
Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
50          55          60
Ile Asp Glu Asp Lys His Pro Gly Asn Leu Pro Arg Thr Tyr Thr Leu
65          70          75          80
Thr His Ser Asp Val Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr
85          90          95
Ile Asn Asn Ser Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp
100         105         110
Glu Val Val Ala Gln Trp Lys Lys Val Lys Gly Lys Met Ser Leu His
115         120         125
Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Ile Phe Ala
130         135         140
Arg Leu Arg Tyr Phe Ile Phe Cys Lys Glu Leu Pro Val Val Leu Lys
145         150         155         160
Ala Phe Val His Gly Asp Gly Asn Leu Phe Asn Asn Tyr Pro Glu Leu
165         170         175
Gln Glu Ala Leu Val Trp Val Tyr Phe His Ser Lys Ile Pro Glu Phe
180         185         190
Asn Lys Val Glu Cys Trp Gly Pro Leu Lys Glu Ala Ser Gln Pro Thr
195         200         205
Ser Gly Thr Gln Arg Asp His Gln Asn Leu Thr Leu Pro Glu Pro Cys
210         215         220
Gln Glu Thr Cys Glu Cys Cys Phe Pro Pro Leu Lys Leu Ser Pro Met
225         230         235         240
Pro Cys Ser Asn Glu Val His Asn Asp Thr Tyr Glu Pro Ile Asp Gly
245         250         255

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4240-145 Sequence Listing.txt

Ile Glu Thr Gln Gln Ser Leu
260

<210> 44

<211> 272

<212> PRT

<213> Solanum tuberosum

<400> 44

Met Gly Thr Leu Thr Ala Ser Leu Val Val Pro Ser Lys Leu Asn Asn
1 5 10 15

Glu Lys Gln Ser Ser Ile Phe Val His Lys Thr Arg Arg Lys Ser Lys
20 25 30

Lys Asn Gln Ser Ile Val Pro Val Ala Arg Leu Phe Gly Pro Ala Ile
35 40 45

Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp Glu Glu
50 55 60

Lys His Pro Gly Lys Leu Pro Arg Thr Tyr Thr Leu Thr His Ser Asp
65 70 75 80

Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn Asn Ser
85 90 95

Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp Glu Val Val Ala
100 105 110

Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His Val His Cys His
115 120 125

Ile Ser Gly Gly His Phe Met Leu Asp Leu Phe Ala Arg Leu Arg Asn
130 135 140

Tyr Ile Phe Cys Lys Glu Leu Pro Val Val Leu Lys Ala Phe Val His
145 150 155 160

Gly Asp Glu Asn Leu Leu Lys Asn Asn Pro Glu Leu Gln Glu Ala Leu
165 170 175

Val Trp Val Tyr Phe His Ser Asn Ile Gln Glu Phe Asn Lys Val Glu
180 185 190

Cys Trp Gly Pro Leu Lys Asp Ala Thr Ser Pro Ser Ser Ser Ser
195 200 205

4240-145 Sequence Listing.txt

Gly Val Gly Gly Val Lys Ser Thr Ser Phe Thr Ser Asn Ser Asn Asn
210 215 220

Lys Trp Glu Leu Pro Lys Pro Cys Glu Glu Ala Cys Ala Cys Cys Phe
225 230 235 240

Pro Pro Met Ser Val Met Pro Trp Pro Ser Ser Asn Leu Asp Gly Ile
245 250 255

Gly Glu Glu Asn Gly Thr Ile Gln Gln Gly Leu Gln Glu Gln Gln Ser
260 265 270

<210> 45

<211> 269

<212> PRT

<213> Populus tremula x Populus tremuloides

<400> 45

Met Gly Ser Leu Ala Ile Ala Pro Phe Leu Pro Ser Lys Leu Arg Pro
1 5 10 15

Ser Ile Leu Asp Gln Asn Ser Ser Leu Phe Pro Ser Lys Lys Lys Leu
20 25 30

Lys Arg Lys Asn Gln Ser Ile Ser Pro Val Ala Arg Leu Phe Gly Pro
35 40 45

Ser Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp
50 55 60

Glu Lys Lys His Pro Gly Asn Leu Pro Arg Thr Tyr Thr Leu Thr His
65 70 75 80

Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn
85 90 95

Asn Ser Gln Leu Gln Gly Trp Ser Asn Lys Leu Tyr Arg Asp Glu Val
100 105 110

Val Ala Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His Val His
115 120 125

Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Leu Cys Cys Arg Leu
130 135 140

Arg Tyr Phe Ile Phe Arg Lys Glu Leu Pro Val Val Leu Lys Ala Phe
145 150 155 160

4240-145 Sequence Listing.txt

Phe His Gly Asp Gly Asn Leu Phe Ser Ser Tyr Pro Glu Leu Gln Glu
165 170 175

Ala Leu Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Phe Asn Lys
180 185 190

Val Glu Cys Trp Gly Pro Leu Lys His Ala Ala Ala Pro Tyr Thr Ala
195 200 205

Ala Ser Gly Gly Ala Pro Glu Asn Lys Glu Gln Ala Thr Asp Trp Asn
210 215 220

Leu Pro Glu Pro Cys Gln Glu Asn Cys Gln Cys Cys Phe Pro Pro Met
225 230 235 240

Ser Leu Ile Pro Trp Ser Glu Met Val Pro Gln Glu Asn Lys Asn Asn
245 250 255

Pro Ser Thr Gln Gln Thr Phe Gln Gln Ala Gln Gln Pro
260 265

<210> 46
<211> 270
<212> PRT
<213> Populus tremula x Populus tremuloides

<400> 46

Met Gly Ser Leu Ala Val Ala Pro Phe Leu Pro Ser Lys Pro Arg Pro
1 5 10 15

Ser Leu Phe Asp Gln His Ser Ser Leu Phe Ser Pro Ser Thr Lys Leu
20 25 30

Lys Arg Lys Asn Gln Ser Ile Ser Pro Val Ala Arg Leu Phe Gly Pro
35 40 45

Ser Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp
50 55 60

Glu Lys Glu His Pro Gly Asn Leu Pro Arg Thr Tyr Thr Leu Thr His
65 70 75 80

Ser Asp Met Thr Ala Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn
85 90 95

Asn Ser Gln Leu Gln Gly Trp Ser Asn Lys Leu Tyr Arg Asp Glu Val
100 105 110

4240-145 Sequence Listing.txt

Val Ala Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His Val His
115 120 125

Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Trp Cys Cys Arg Leu
130 135 140

Arg Tyr Phe Ile Phe Arg Arg Glu Leu Pro Val Val Leu Lys Ala Phe
145 150 155 160

Phe His Gly Asp Gly Ser Leu Leu Ser Asn Tyr Pro Glu Leu Gln Glu
165 170 175

Gly Leu Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Phe Ser Lys
180 185 190

Val Glu Cys Trp Gly Pro Leu Lys Asp Ala Ala Ala Pro Ser Thr Ser
195 200 205

Glu Thr Gly Gly Ser Asn Glu Thr Glu Glu Leu Ala Asn Gln Ser Ser
210 215 220

Asn Trp Asp Leu Pro Glu Pro Cys Gln Glu Glu Asn Cys Ser Cys Cys
225 230 235 240

Phe Pro Pro Met Ser Leu Ile Pro Trp Ser Lys Met Val Pro Leu Glu
245 250 255

Asp Lys Asn Asn Pro Ser Thr Pro Gln Asn Leu Gln Gln Pro
260 265 270

<210> 47
<211> 286
<212> PRT
<213> Mesembryanthemum crystallinum

<400> 47

Met Gly Thr Leu Thr Ala Ser Met Leu Leu Pro Ser Lys Leu Lys Pro
1 5 10 15

Ser Val Phe Glu Asp Gln Ser Ser Val Tyr Phe Lys Arg Ser Cys Arg
20 25 30

Gly Leu Pro Lys Leu Asn Lys Ala Lys Ser Phe Ser Pro Val Met Arg
35 40 45

Leu Phe Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe
50 55 60

4240-145 Sequence Listing.txt

Leu Gly Val Asp Lys Glu Lys His Pro Gly Lys Leu Pro Arg Thr Tyr
65 70 75 80

Thr Leu Thr His Ser Asp Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser
85 90 95

Gln Thr Ile Asn Asn Ser Gln Leu Gln Gly Trp Tyr Asn Gln Leu Gln
100 105 110

Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Lys Gly Lys Met Ser
115 120 125

Leu His Val His Cys His Ile Ser Gly Gly His Ile Leu Leu Asp Leu
130 135 140

Phe Ala Lys Leu Arg Phe Tyr Ile Phe Cys Lys Glu Leu Pro Val Val
145 150 155 160

Leu Lys Ala Phe Val His Gly Asp Glu Asn Leu Phe Asn Asn Tyr Pro
165 170 175

Glu Leu Gln Glu Ala Met Val Trp Val Tyr Phe His Ser Asn Leu Glu
180 185 190

Glu Phe Asn Lys Ile Glu Cys Trp Gly Pro Leu Lys Asp Ala Val Ala
195 200 205

Arg Asn Ser Lys Lys Asn Lys Asn Lys Asn Lys Ile Asp Phe Lys Leu
210 215 220

Ser Phe Lys Glu Glu Asp Asp Ser Pro Asp Asn Glu Leu Glu Ile Pro
225 230 235 240

Glu Thr Cys Lys Glu Pro Cys Thr Cys Cys Phe Pro Pro Thr Ser Val
245 250 255

Ile Pro Trp Ser His Ser Ala Leu Ser Gln Gly Asp Asp Leu His Leu
260 265 270

Ser Gly Gly Thr His Gln Gly Leu Glu Gln Gln Gln Gln Thr
275 280 285

<210> 48

<211> 268

<212> PRT

<213> Arabidopsis thaliana

<400> 48

4240-145 Sequence Listing.txt

Met Cys Ser Leu Ser Ala Ile Met Leu Leu Pro Thr Lys Leu Lys Pro
1 5 10 15

Ala Tyr Ser Asp Lys Arg Ser Asn Ser Ser Ser Ser Ser Leu Phe
20 25 30

Phe Asn Asn Arg Arg Ser Lys Lys Lys Asn Gln Ser Ile Val Pro Val
35 40 45

Ala Arg Leu Phe Gly Pro Ala Ile Phe Glu Ser Ser Lys Leu Lys Val
50 55 60

Leu Phe Leu Gly Val Asp Glu Lys Lys His Pro Ser Thr Leu Pro Arg
65 70 75 80

Thr Tyr Thr Leu Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala
85 90 95

Ile Ser Gln Ser Ile Asn Asn Ser Gln Leu Gln Gly Trp Ala Asn Arg
100 105 110

Leu Tyr Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Lys Gly Lys
115 120 125

Met Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu
130 135 140

Asp Leu Phe Ala Lys Phe Arg Tyr Phe Ile Phe Cys Lys Glu Leu Pro
145 150 155 160

Val Val Leu Lys Ala Phe Val His Gly Asp Gly Asn Leu Leu Asn Asn
165 170 175

Tyr Pro Glu Leu Gln Glu Ala Leu Val Trp Val Tyr Phe His Ser Asn
180 185 190

Val Asn Glu Phe Asn Lys Val Glu Cys Trp Gly Pro Leu Trp Glu Ala
195 200 205

Val Ser Pro Asp Gly His Lys Thr Glu Thr Leu Pro Glu Ala Arg Cys
210 215 220

Ala Asp Glu Cys Ser Cys Cys Phe Pro Thr Val Ser Ser Ile Pro Trp
225 230 235 240

Ser His Ser Leu Ser Asn Glu Gly Val Asn Gly Tyr Ser Gly Thr Gln
245 250 255

4240-145 Sequence Listing.txt

Thr Glu Gly Ile Ala Thr Pro Asn Pro Glu Lys Leu
260 265

<210> 49
<211> 271
<212> PRT
<213> Arabidopsis thaliana
<400> 49

Met Cys Ser Leu Ala Thr Asn Leu Leu Leu Pro Ser Lys Met Lys Pro
1 5 10 15

Val Phe Pro Glu Lys Leu Ser Thr Ser Ser Leu Cys Val Thr Thr Arg
20 25 30

Arg Ser Lys Met Lys Asn Arg Ser Ile Val Pro Val Ala Arg Leu Phe
35 40 45

Gly Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly
50 55 60

Val Asp Glu Lys Lys His Pro Ala Lys Leu Pro Arg Thr Tyr Thr Leu
65 70 75 80

Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser Gln Ser
85 90 95

Ile Asn Asn Ser Gln Leu Gln Gly Trp Ala Asn Lys Leu Phe Arg Asp
100 105 110

Glu Val Val Gly Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His
115 120 125

Val His Cys His Ile Ser Gly Gly His Phe Phe Leu Asn Leu Ile Ala
130 135 140

Lys Leu Arg Tyr Tyr Ile Phe Cys Lys Glu Leu Pro Val Val Leu Glu
145 150 155 160

Ala Phe Ala His Gly Asp Glu Tyr Leu Leu Asn Asn His Pro Glu Leu
165 170 175

Gln Glu Ser Pro Val Trp Val Tyr Phe His Ser Asn Ile Pro Glu Tyr
180 185 190

Asn Lys Val Glu Cys Trp Gly Pro Leu Trp Glu Ala Met Ser Gln His
195 200 205

4240-145 Sequence Listing.txt

Gln His Asp Gly Arg Thr His Lys Lys Ser Glu Thr Leu Pro Glu Leu
210 215 220

Pro Cys Pro Asp Glu Cys Lys Cys Cys Phe Pro Thr Val Ser Thr Ile
225 230 235 240

Pro Trp Ser His Arg His Tyr Gln His Thr Ala Ala Asp Glu Asn Val
245 250 255

Ala Asp Gly Leu Leu Glu Ile Pro Asn Pro Gly Lys Ser Lys Gly
260 265 270

<210> 50

<211> 221

<212> PRT

<213> Lycopersicon esculentum

<400> 50

Met Gly Thr Leu Thr Thr Ser Leu Val Val Pro Ser Lys Leu Asn Asn
1 5 10 15

Glu Gln Gln Ser Ser Ile Phe Ile His Lys Thr Arg Arg Lys Cys Lys
20 25 30

Lys Asn Gln Ser Ile Val Pro Val Ala Arg Leu Phe Gly Pro Ala Ile
35 40 45

Phe Glu Ala Ser Lys Leu Lys Val Leu Phe Leu Gly Val Asp Glu Glu
50 55 60

Lys His Pro Gly Lys Leu Pro Arg Thr Tyr Thr Leu Thr His Ser Asp
65 70 75 80

Ile Thr Ser Lys Leu Thr Leu Ala Ile Ser Gln Thr Ile Asn Asn Ser
85 90 95

Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp Glu Val Val Ala
100 105 110

Glu Trp Lys Lys Val Lys Gly Lys Met Ser Leu His Val His Cys His
115 120 125

Ile Ser Gly Gly His Phe Met Leu Asp Leu Phe Ala Arg Leu Arg Asn
130 135 140

Tyr Ile Phe Cys Lys Glu Leu Pro Val Val Leu Lys Ala Phe Val His
145 150 155 160

4240-145 Sequence Listing.txt

Gly Asp Glu Asn Leu Leu Arg Asn Tyr Pro Glu Leu Gln Glu Ala Leu
165 170 175

Val Trp Val Tyr Phe His Ser Asn Ile Gln Glu Phe Asn Lys Val Glu
180 185 190

Cys Trp Gly Pro Leu Arg Asp Ala Thr Ser Pro Ser Ser Ser Ser Gly
195 200 205

Gly Val Gly Gly Val Lys Ser Thr Ser Phe Thr Ser His
210 215 220

<210> 51
<211> 110
<212> PRT
<213> Beta vulgaris

<400> 51

Pro Glu Leu Gln Glu Ala Ser Val Trp Val Tyr Phe His Ser Ser Ile
1 5 10 15

Pro Glu Phe Asn Lys Val Glu Cys Trp Gly Pro Leu Thr Asp Ala Val
20 25 30

Asp Pro Pro Ser Lys Asn Lys Lys Arg Met Met Met Ile Asn Asp Glu
35 40 45

Gln Asp Lys Glu Glu Glu Glu Glu Ala Ser Ser Ser Lys Trp Glu Met
50 55 60

Leu Val Pro Cys Thr Lys Pro Cys Arg Cys Cys Phe Pro Pro Thr Ser
65 70 75 80

Leu Ile Pro Trp Thr Pro Ser Leu Ser Gln Glu Gln Gln Gln Glu Gln
85 90 95

Gln Leu Pro Gly Asp Val Ser Ile Pro Pro Pro Gly Thr Arg
100 105 110

<210> 52
<211> 187
<212> PRT
<213> Zosterops japonica

<400> 52

Thr Tyr Thr Leu Thr His Ser Asp Val Thr Ala Lys Leu Thr Leu Ala
1 5 10 15

4240-145 Sequence Listing.txt

Val Ser His Thr Ile His Ala Ala Gln Leu Gln Gly Trp Tyr Asn Arg
20 25 30

Leu Gln Arg Asp Glu Val Val Ala Glu Trp Arg Lys Val Arg Gly Asn
35 40 45

Met Ser Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Arg
50 55 60

Asp Leu Ile Ala Pro Leu Arg Tyr Tyr Ile Phe Arg Lys Glu Leu Pro
65 70 75 80

Val Val Leu Lys Ala Phe Val His Gly Asp Gly Ser Leu Phe Ser Ser
85 90 95

His Pro Glu Leu Glu Glu Ala Thr Val Trp Val Tyr Phe His Ser Asn
100 105 110

Leu Pro Arg Phe Asn Arg Val Glu Cys Trp Gly Pro Leu Cys Asp Ala
115 120 125

Ala Ala Pro Val Glu Glu Glu Gly Gln Gln Asn Asp Asp Arg Leu Pro
130 135 140

Ala Gly Glu Trp Pro Arg Arg Cys Pro Gln Gln Cys Glu Cys Cys Phe
145 150 155 160

Pro Pro His Ser Leu Ile Pro Trp Pro Asn Glu His Asp Met Ala Pro
165 170 175

Thr Asp Ala Pro Ala Ala Gly Gln Thr Gln Gln
180 185

<210> 53

<211> 93

<212> PRT

<213> Lotus corniculatus

<400> 53

Tyr Pro Glu Leu Gln Asp Ala Leu Val Trp Val Tyr Phe His Ser Lys
1 5 10 15

Ile Pro Glu Phe Asn Lys Val Gln Cys Trp Gly Pro Leu Lys Glu Ala
20 25 30

Ala Ala Pro Ser Gly Gly Ser Pro Glu Lys Glu Gly Glu Gly Val Lys
35 40 45

4240-145 Sequence Listing.txt

Met Pro Asp Pro Cys Pro Glu Glu Cys Glu Cys Cys Phe Pro Pro Pro
50 55 60

Pro Ala Leu Asp Pro Ile Pro Trp Ser Glu Glu Val Pro Ser Pro His
65 70 75 80

Tyr Glu Ala Phe Asp Gly Val Gly Thr Arg Pro Asn Leu
85 90

<210> 54
<211> 107
<212> PRT
<213> Lotus corniculatus

<400> 54

Asp Leu Cys Ala Lys Leu Arg Tyr Phe Ile Phe Cys Lys Glu Leu Pro
1 5 10 15

Val Val Leu Lys Ala Phe Ile His Gly Asp Glu Asn Leu Phe Asn Asn
20 25 30

Tyr Pro Glu Leu Glu Glu Ser Leu Val Trp Val Tyr Phe His Ser Asn
35 40 45

Ile Ser Glu Phe Asn Lys Val Glu Cys Trp Gly Pro Leu Lys Asp Ala
50 55 60

Cys Ala Thr Ser Ile Gly Ser Tyr Ser Tyr Asp Lys Gly Met Pro Gln
65 70 75 80

Thr Gln Pro Cys Gln Gln Asn Cys Glu Cys Cys Phe Thr Pro Met Ser
85 90 95

Ser Ser Asp Trp Ile Gly Thr Gln Gln Lys Leu
100 105

<210> 55
<211> 137
<212> PRT
<213> Saccharum officinarum

<400> 55

Thr Arg Leu Asp Leu Ile Ala Gly Leu Arg Tyr Tyr Ile Phe Arg Lys
1 5 10 15

Glu Leu Pro Val Val Leu Lys Ala Phe Val His Gly Asp Gly Asp Leu
20 25 30

Phe Ser Arg His Pro Glu Leu Glu Asp Ala Thr Val Trp Val Tyr Phe
Page 43

4240-145 Sequence Listing.txt

35

40

45

His Ser Asn Leu Thr Arg Phe Asn Arg Val Glu Cys Trp Gly Pro Leu
50 55 60

Arg Asp Ala Ala Ala Pro Pro Ala Glu Glu Asp Ser Thr Ala Pro Ala
65 70 75 80

Ala Ser Asn Ser Lys Glu Gly Gln Met Pro Pro Val Gly Glu Trp Pro
85 90 95

Tyr Arg Cys Pro Gln Gln Cys Asp Cys Cys Phe Pro Pro His Ser Leu
100 105 110

Ile Pro Trp Pro Asn Glu His Asp Met Ala Ala Ala Ala Asp Ala
115 120 125

Thr Ala Ala Gly Gln Ala Gln Gln Gln
130 135

<210> 56
<211> 159
<212> PRT
<213> Picea abies

<400> 56

Ile Asn Lys Asp Gln Leu Gln Gly Trp Tyr Asn Arg Leu Gln Arg Asp
1 5 10 15

Glu Val Ile Ala Gln Trp Lys Lys Ser Gln Gly Lys Met Ser Leu His
20 25 30

Val His Cys His Ile Ser Gly Gly His Trp Leu Leu Asp Ala Ile Ala
35 40 45

Arg Leu Arg Phe Tyr Ile Phe Arg Lys Glu Leu Pro Val Val Leu Glu
50 55 60

Ala Phe Arg His Gly Asp Arg Ala Leu Leu Asp Lys His Pro Glu Leu
65 70 75 80

Glu Thr Ala Leu Val Trp Val Tyr Phe His Ser Asn Val Arg Glu Phe
85 90 95

Lys Arg Val Glu Cys Trp Gly Ser Leu Ala Glu Ala Cys Lys Gly Ala
100 105 110

Pro Ser Asn Leu Glu Lys Glu Leu Asp Glu Glu Phe Asn Gly Glu Lys

4240-145 Sequence Listing.txt
120 125

115

Leu Glu Met Pro Ser His Cys Ser Glu Pro Cys Asn Cys Cys Phe Pro
130 135 140

Pro Phe Ser Val Leu Leu Arg Pro Glu Asp Ala Glu Gln Phe Ile
145 150 155

<210> 57
<211> 210
<212> PRT
<213> Brassica napus

<400> 57

Met Cys Ser Leu Ala Thr Asn Leu Leu Leu Pro Ser Thr Met Lys Pro
1 5 10 15

Ala Phe Thr Glu Lys Gln Asn Thr Asn Ser Leu Phe Leu Thr Asn Lys
20 25 30

Arg Ser Leu Met Gln Asn Arg Ser Thr Val Pro Val Pro Val Ala Arg
35 40 45

Leu Leu Glu Pro Ala Ile Phe Glu Ala Ser Lys Leu Lys Val Ser Phe
50 55 60

Leu Gly Val Asp Glu Lys Lys His Pro Ser Lys Leu Pro Arg Thr Tyr
65 70 75 80

Thr Leu Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser
85 90 95

Gln Ser Ile Asn Asn Ser Gln Leu Gln Gly Trp Ala Asn Arg Leu Phe
100 105 110

Arg Asp Glu Val Val Ala Glu Trp Lys Lys Val Lys Gly Lys Met Ser
115 120 125

Leu His Val His Cys His Ile Ser Gly Gly His Phe Leu Leu Asp Leu
130 135 140

Ile Ala Lys Leu Arg Tyr Tyr Ile Phe Cys Lys Glu Leu Pro Val Val
145 150 155 160

Leu Lys Ala Phe Val His Gly Asp Gly Asn Leu Leu Asn Ser Tyr Pro
165 170 175

Glu Leu Gln Glu Ser Pro Val Trp Val Tyr Ser Ile Gln Thr Ser Pro
Page 45

4240-145 Sequence Listing.txt
185 190

180

Ser Thr Ile Arg Leu Asn Val Gly Gly Arg Phe Gly Arg Pro Arg Ser
195 200 205

Thr Asn
210

<210> 58
<211> 97
<212> PRT
<213> Brassica napus

<400> 58

Met Cys Ser Leu Ser Ala Asn Met Leu Leu Pro Thr Lys Leu Lys Pro
1 5 10 15

Ala Tyr Ser Asp Lys Arg Gly Asn Ser Thr Asn Ser Leu Leu Val Ser
20 25 30

Asn Thr Arg Ser Lys Arg Lys Asn Gln Ser Val Val Pro Met Ala Arg
35 40 45

Leu Phe Gly Pro Ala Ile Phe Glu Ser Ser Lys Leu Lys Val Leu Phe
50 55 60

Leu Gly Val Asp Asp Lys Lys His Pro Pro Thr Leu Pro Arg Thr Tyr
65 70 75 80

Thr Leu Thr His Ser Asp Ile Thr Ala Lys Leu Thr Leu Ala Ile Ser
85 90 95

His